

and most efficient agent in treating syphilitic nervous disease, the use of mercury, preferably intramuscularly, in the interval between doses of salvarsan, has proved highly desirable. They recommend the salicylate in a purified petroleum oil suspension for intramuscular injection. It is probable that the intermittent treatment will prove advantageous. By this is meant a succession of periods of treatment and periods of rest, each covering a number of weeks. The spirochete is thus not rendered immune or less sensitive to the specific therapy as may occur when treatment is continuous. In observing the progress of therapy and the decadence of the syphilitic process, the Wassermann reaction and the cell count are the most enlightening guides. Improvement in symptoms nearly always follows improvement in these. The author's state in their conclusions, that the nervous system may be the site of attack within a few weeks after the initial lesion. The earlier antisyphilitic treatment is instituted in syphilitic nervous diseases, the greater the probability of complete recovery.

The Diagnosis and Treatment of Cerebrospinal Syphilis.—STEWART (*British Med. Jour.*, 1914, 2783, 949) reports excellent results in the treatment of cerebrospinal syphilis by intraspinal injections of either salvasanized serum or of small doses of neosalvarsan combined with the intravenous administration of neosalvarsan. In every one of 11 cases of tabes the clinical signs improved, lightning pains and gastric crises subsided, sphincter control was improved, ataxia was frequently diminished, and in one patient the knee-jerks, previously absent, reappeared. In every case, save one, the lymphocytosis of the cerebrospinal fluid was markedly reduced. In this case, the cells of the spinal fluid increased slightly in number, but the lightning pains disappeared and ataxia completely cleared up. In speaking of the intracranial methods for introducing remedies with the cerebrospinal fluid. Stewart says that we should select those methods which are least likely to cause damage to the brain. For this reason cortical applications possess certain advantages over intraventricular injections. Further, when comparing intraspinal with intracranial administration, we have to bear in mind that a long series of treatments is necessary in order to properly treat a given patient, and we must consider whether we are justified in submitting a patient to the risks of repeated cranial operations, unless these can be shown to yield results which are materially better than those obtained by intraspinal injection. Stewart says that improvement in the condition of the cerebrospinal fluid is a useful index of arrest of the disease, but it must be remembered that, in general paresis at least, the cell count in the fluid may go down without any corresponding improvement in the mental symptoms. This is readily understood when one bears in mind that, even if the disease process be arrested, those nerve-cells and nerve-fibers which have been already destroyed, remain destroyed and cannot be regenerated. It is therefore of importance to select only those cases of general paresis which are in the early or toxic stage of the disease, before the cortex has become profoundly degenerated. The earlier the disease is recognized, the better are the prospects of improvement. Advanced cases with profound cortical degeneration are totally unsuitable. The most thorough method of attacking general paresis would be to

administer remedies concurrently by all three routes—intravenously, intraspinally, and intracranially. It is too early to claim that we yet possess a cure for tabes or general paresis, but Stewart believes that in suitable cases, much can be done to arrest both diseases. Whether such periods of arrest are permanent, time alone will show.

The Salvarsan Treatment of Progressive Paralysis.—RUNGE (*Deutsch med. Woch.*, 1914, xl, 998) compares the results obtained in the treatment of 175 cases of progressive paralysis with the older methods, mercury and the iodids, with those obtained by the use of salvarsan in 91 cases. Periods of improvement, which he designates as remissions, occurred only in 3.9 per cent. of 380 cases in which no treatment had been taken; in 9.3 per cent. of 140 cases treated with iodid alone; in 11.4 per cent. of 35 cases treated only with mercury; in 14 per cent. of 44 cases treated with a total dosage of 1 gm. salvarsan, and in 60 per cent. of 47 cases treated with larger doses of salvarsan, ranging from 1.0 to 10.5 gm. The percentage of remissions increased with higher dosage, which is shown by the fact that 28 per cent. of 72 cases given less than 3 gm. of salvarsan improved while 74 per cent. improved of the 19 cases given over 3 gm. of salvarsan. Of all patients who were not treated by salvarsan only 2 per cent. remained stationary for long periods of time while 30 per cent. did so after salvarsan. The general health of the patients treated with salvarsan improved remarkably as a rule, even when the mental symptoms were not favorably influenced. Runge advises the administration of salvarsan by repeated courses up to a total dosage of 5 or 10 gm. His practise has been to give repeated small doses at five-day intervals, but lately he has been convinced that an eight-day interval is safer. Some of the cases treated with salvarsan showed no improvement but most of these received only very small doses. However, he has found that even large doses of salvarsan fail to induce a remission in some cases and the disease, furthermore, may even grow more severe. Four cases of this series seemed to be made distinctly worse. However, the dosage had been only 0.2 to 1.5 gm., and Runge thinks that a more favorable result might have been obtained if the treatment had been more thorough. The author believes that the results are better when the treatment is begun in the early stages of the disease but good results may be obtained in a large number of cases, even when the symptoms are of long duration.

The Treatment of Leukemia with Benzol.—LIBEROW (*Therap. Monatsheft*, 1914, xxviii, 339) reports a case of myeloid leukemia treated successfully with benzol. The daily dose averaged from 1.5 to 2.0 gm., and toward the latter part of the treatment only 1 gm. The author emphasizes the fact that the administration of benzol should always be controlled by repeated blood and urine examinations. No unfavorable effect was observed on the number of red blood cells and the hemoglobin. The red cells rose and kept above 5,000,000 and the hemoglobin remained at 62 per cent. When the white cells had dropped to 13,000, Liberow reduced the dose of benzol and there was no further fall in the number of leukocytes. The patient was a woman, aged thirty-four years, with marked ascites due, according to the author,